

What is claimed is:

Sub A17 1. A sports racket, comprising;

a frame defining a rounded opening of predetermined shape with a vertical axis and a horizontal axis;

a handle secured to the frame and lying at least substantially along the vertical axis; and strings supported by the frame and suspended within said opening, said strings being arranged in two parallel, interwoven groups wherein strings of the first group intersect a reference line parallel to the horizontal axis at an angle of about 49-60 degrees above said reference line and strings of the second group intersect the reference line at an angle of about 49-60 degrees below the reference line.

2. The sports racket according to claim 1, wherein the predetermined shape is an oval and said intersection angles are between about 51 -58 degrees.
3. The sports racket according to claim 2, wherein said intersection angles are about 53 degrees.
4. The sports racket according to claim 1, wherein said predetermined shape is a circle and said intersection angles are about 60 degrees.
5. The sports racket according to claim 1, wherein the spacing between adjacent parallel strings is between about 0.25 to 0.75 inches.
6. The sports racket according to claim 5, wherein the spacing between adjacent parallel strings is about 0.375 inches.
7. The sports racket according to claim 1, wherein the intersection angle is selected to minimize distortion of said predetermined shape.
8. The racket according to claim 1, wherein every other string is tensioned.
9. A sports racket, comprising:
a frame defining an oval opening of predetermined dimensions with a vertical axis oriented along the elongated dimension and a perpendicular horizontal axis;
a handle secured to the frame and lying at least substantially along the vertical axis; and strings supported by the frame and suspended within said opening, said strings being arranged in two parallel intersecting groups with adjacent strings spaced apart by approximately 0.25 to 0.75 inches and wherein strings of the first group intersect a reference line parallel to the horizontal axis at an angle of about 51-58 degrees above said reference line and strings of the second group intersect the reference line at an angle of about 51-58 degrees below the reference line, said intersection angles being selected to minimize distortion of said predetermined dimensions.
- Sub A27 10. A method for diagonal stringing of a sports racket, said strings being arranged in two parallel intersecting groups, said method comprising:
creating a diagonal stringing pattern with a nominal intersection angle between the strings,

including a representation of at least substantially all strings of the racket to be strung;
applying said stringing pattern to a first racket frame of a construction type;
determining an intersection point for each string representation with the frame;
providing string holes in the frame at said intersection points;
stringing the racket through said string holes;
tensioning the strings and measuring distortion of the frame;
re-stringing the racket to eliminate any measured distortion, said re-stringing comprising
changing the intersection angle between the strings by passing each string through a hole
offset from the hole corresponding to the nominal intersection angle in said stringing pattern,
while maintaining said strings in each group in parallel relationship;
re-tensioning the strings; and
measuring distortion and re-stringing as required to eliminate distortion of the frame.

11. The method of claim 10, further comprising:
creating a new diagonal stringing pattern based on said re-stringing;
applying said new stringing pattern to a second racket frame of said construction type;
determining an intersection point for each string representation with the second frame;
providing string holes in the second frame at said intersection points;
stringing the second racket through said string holes;
tensioning the strings and measuring distortion of the frame; and
repeating said re-stringing step with said second frame as required to eliminate distortion.
12. The method according to claim 10, wherein the racket frame comprises a frame defining an
opening with a vertical axis substantially aligned with a handle and a perpendicular
horizontal axis and said nominal intersection angle is approximately 55 degrees above and
below the horizontal axis for first and second groups of strings, respectively.
13. The method according to claim 10, where in the diagonal stringing pattern is created with a
nominal parallel spacing between strings of approximately 0.375 inches.
14. The method according to claim 10, wherein said tensioning comprises tensioning every other
string.

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